

CLAIMS

[1] An optical fiber wiring method comprising the steps of feeding an optical fiber to pass through an adhesive ejecting nozzle having an inner diameter larger than an outer diameter of the optical fiber, to thereby
5 obtain the optical fiber coated with the adhesive on a fiber surface, and forming optical wiring on a substrate by using the adhesive-coated optical fiber.

[2] The optical fiber wiring method according to Claim 1, wherein the
10 optical wiring is formed on the substrate by moving the substrate and the nozzle relative to each other.

[3] The optical fiber wiring method according to Claim 2, wherein the relative movement of the substrate and the nozzle is performed by moving the nozzle with the substrate held fixed.

[4] The optical fiber wiring method according to Claim 2, wherein the
15 relative movement of the substrate and the nozzle is performed by moving the substrate with the nozzle held fixed.

[5] The optical fiber wiring method according to any one of Claims 1 to 4, wherein the optical fiber is a polymer optical fiber.

[6] The optical fiber wiring method according to any one of Claims 1
20 to 5, wherein the adhesive is of the type being hardened with irradiation of an ultraviolet ray, and the optical wiring is formed on the substrate by irradiating an ultraviolet ray after the optical fiber coated with the adhesive on the fiber surface has been wired on the substrate.

[7] An optical fiber wiring apparatus comprising a liquid material
25 ejecting unit provided with a liquid material ejecting nozzle having an inner diameter larger than an outer diameter of an optical fiber and

allowing the optical fiber and the adhesive to be simultaneously fed through the nozzle, and a stage for supporting a substrate on which the optical fiber is to be wired, wherein the liquid material ejecting unit and the stage are movable relative to each other.

5 [8] The optical fiber wiring apparatus according to Claim 7, wherein the stage for supporting the substrate is fixed and the nozzle is movable to form optical wiring on the substrate with the relative movement.

10 [9] The optical fiber wiring apparatus according to Claim 7, wherein the nozzle is fixed and the stage for supporting the substrate is movable to form optical wiring on the substrate with the relative movement.

15 [10] The optical fiber wiring apparatus according to any one of Claims 6 to 9, wherein the adhesive is of the type being hardened with irradiation of an ultraviolet ray, and the apparatus further comprises an ultraviolet ray irradiation unit for irradiating an ultraviolet ray to harden the adhesive after the optical fiber coated with the adhesive on the fiber surface has been wired on the substrate.